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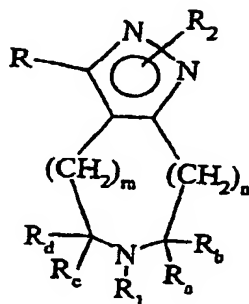
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For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: BICYCLO-PYRAZOLES ACTIVE AS KINASE INHIBITORS, PROCESS FOR THEIR PREPARATION AND PHAR-  
MACUTICAL COMPOSITIONS COMPRISING THEM



(57) Abstract: The present invention provides a method for treating diseases caused by and/or associated with an altered protein kinase activity which comprises administering to a mammal in need thereof an effective amount of a pyrazole-tetrahydro pyridine derivative. The invention also provides specific pyrazole-tetrahydro pyridines, a library comprising at least two of them, a process for their preparation and the pharmaceutical compositions containing them, which are useful in the treatment of diseases caused by and/or associated with an altered protein kinase activity such as cancer, cell proliferative disorders, viral infections, autoimmune diseases and neurodegenerative disorders.

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP 03/07000

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K31/437 A61P25/28 A61P35/00 C07D471/04

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K A61P C07D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, CHEM ABS Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	US 2003/073672 A1 (TAYS KEVIN L ET AL) 17 April 2003 (2003-04-17) examples	13-18
P, X	WO 02 064574 A (ORTHO MCNEIL PHARM INC) 22 August 2002 (2002-08-22) page 11; examples 10, 11	13-18
X	WO 02 12242 A (PITTALA VALERIA ;VARASI MARIO (IT); FANCELLI DANIELE (IT); PHARMAC) 14 February 2002 (2002-02-14) claim 1; examples	1-30
A	WO 96 12720 A (PFIZER ;DUPLANTIER ALLEN J (US)) 2 May 1996 (1996-05-02) cited in the application examples	1-30
	-/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
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- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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Date of the actual completion of the international search

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# INTERNATIONAL SEARCH REPORT

International Application No  
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	KIKUCHI, CHIKA ET AL: "Tetrahydrothienopyridylbutyltetrahydrobenzindoles: new selective ligands of the 5-HT <sub>7</sub> receptor" BIOORGANIC & MEDICINAL CHEMISTRY LETTERS (2002), 12(18), 2549-2552, 16 September 2002 (2002-09-16), XP002256018 page 2550; example 5G	13-18
X	--- SINGH, P. ET AL: "Quantitative structure-activity relationship studies on a new class of antihypertensive agents: derivatives of 3-aryl-4,5,6,7-tetrahydro-1H-pyrazolo[4,3-c]pyridine" QUANTITATIVE STRUCTURE-ACTIVITY RELATIONSHIPS ( 1990 ), 9(1), 29-32 , XP001155089 figure 1; examples; table 1	13-18
X	--- WINTERS, GIORGIO ET AL: "Synthesis, in vitro <sup>3</sup> H-prazosin displacement, and in vivo activity of 3-aryl-4,5,6,7-tetrahydropyrazolo[4,3-c]pyridines, a new class of antihypertensive agents" JOURNAL OF MEDICINAL CHEMISTRY ( 1985 ), 28(7), 934-40 , XP002256019 examples; tables I,,II,,III	13-18
X	--- RADINOV, R. ET AL: "3-Phenylpyrazolo[4,3-c]pyridine and derivatives: structure determination" JOURNAL OF MOLECULAR STRUCTURE ( 1987 ), 158, 99-108 , XP009018257 page 104; example 9	13-18
A	--- LACKEY K K ET AL: "The discovery of potent cRaf1 kinase inhibitors" BIOORGANIC & MEDICINAL CHEMISTRY LETTERS, OXFORD, GB, vol. 10, no. 3, February 2000 (2000-02), pages 223-226, XP004188821 ISSN: 0960-894X page 224	1-30
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# INTERNATIONAL SEARCH REPORT

International Application No  
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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>COHEN P: "The development and therapeutic potential of protein kinase inhibitors" CURRENT OPINION IN CHEMICAL BIOLOGY, CURRENT BIOLOGY LTD, LONDON, GB, vol. 3, no. 4, August 1999 (1999-08), pages 459-465, XP002216616 ISSN: 1367-5931 cited in the application figure 2</p>	1-30

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/EP 03/07000

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
Although claims 1-12 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 03/07000

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2003073672	A1	17-04-2003	NONE	
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